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Donald C. Brittingham
Director – Wireless/Spectrum Policy

December 4, 2003

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W., Room TW-A325
Washington, D.C. 20554

**Re: *Ex Parte* Presentation
 WT Docket No. 03-103; “Air-Ground Telecommunications Services”**

Dear Ms. Dortch:

On December 3, 2003, representatives of Verizon Airfone met with FCC staff to discuss the Commission’s pending rulemaking on the Air-Ground service. A copy of the presentation and a list of meeting participants are attached.

There is a strong demand for broadband air-ground services. Unfortunately, the FCC’s current rules do not permit the offering of such services in the 800 MHz air-ground spectrum. Verizon Airfone asks the Commission to make modest changes to its rules to allow Airfone to offer these services to its air-ground customers. Such changes would expand the broadband choices available to telecommunications customers, and is therefore in the public interest.

Pursuant to Section 1.1206(b)(2) of the Commission’s Rules, an electronic copy of this letter is being filed for inclusion in the above-referenced docket.

Sincerely,

/s/ Donald C. Brittingham
Donald C. Brittingham

cc: Richard Arsenault
 Shellie Blakeney
 Tom Derenge
 David Furth

Kathy Harris
Shameeka Hunt
Julius Knapp
Roger Noel

Salomon Satche
Moslem Sawez
Jim Schlichting

List of Attendees

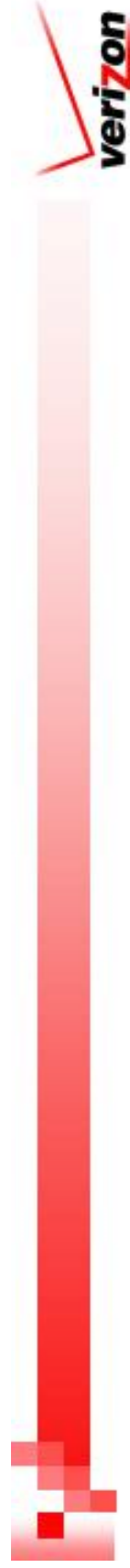
Richard Arsenault, Mobility Division, WTB
Shellie Blakeney, Legal Adviser, WTB
David Furth, Associate Bureau Chief, WTB
Kathy Harris, Mobility Division, WTB
Roger Noel, Mobility Division, WTB
Moslem Sawez, Mobility Division, WTB
Tom Derenge, Policy and Rules Division, OET
Shameeka Hunt, Policy and Rules Division, OET
Julius Knapp, Deputy Chief, OET
Salomon Satche, OET
Jim Schlichting, Deputy Chief, OET

Don Brittingham, Director-Wireless/Spectrum Policy, Verizon Communications
Donna Epps, Attorney, Verizon Communications
Bill Pallone, President, Verizon Airfone
Steve Redford, Director, Verizon Airfone
Robert Combs, Director, Verizon Airfone
David Hilliard, Counsel, Wiley Rein & Fielding LLP
Tom Dombrowsky, Engineering Advisor, Wiley Rein & Fielding LLP



Verizon Airfone Technology Vision

December 3, 2003



Verizon's Commitment

- ◆ Airfone has a long history of serving the flying public.
 - Verizon has invested considerable capital in the Air-to-Ground network.
 - Committed to the development and growth of the Air-to-Ground industry.



Verizon Airfone Capabilities Summary

Voice

Telephone services
Speed Dialing
3-Way
Conference Calling
Prepaid cards

Features

Digital
Air-to-ground & Ground-to-air
Seat-to-seat & Plane-to-plane
SATCOM Compatible
Cabin & Flight Deck Access
Flexible Pricing & Programs

Audio

News
Weather
Sports
Stocks

9.6 kbps Data Link



JetConnectsm Portal

Web based content
Refreshed every 15 minutes
Enhanced data applications
IM & SMS



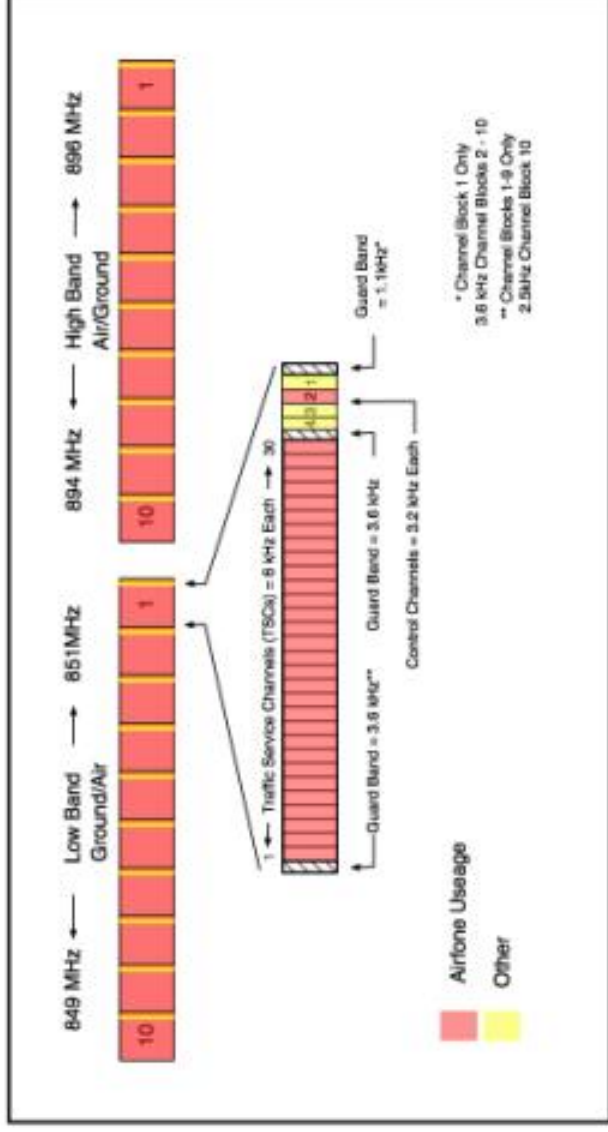
Current Rules Dictate Narrowband Service Offerings

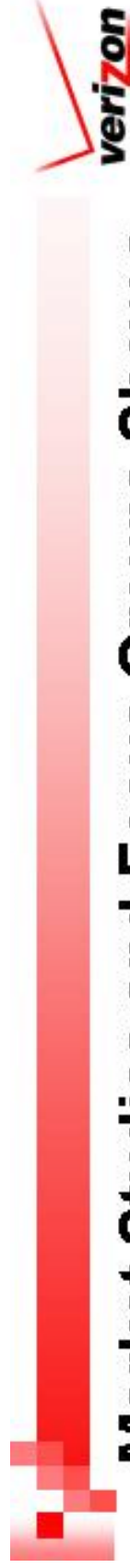
- ◆ Current rules date from 1994.
- ◆ Rules provide for the 800 MHz air-ground spectrum to be shared by up to six licensees using 6 kHz wide communications channels and 3.2 kHz control channels.
- ◆ Only two companies built and operated systems.
- ◆ Verizon Airfone remains as the only licensee in the band and the only company providing service in the band.



Narrow Band Spectrum Chart

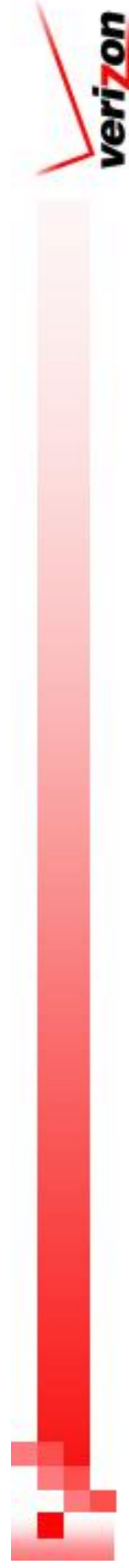
- ◆ Current service offerings use virtually the entire band.
 - Voice
 - News content





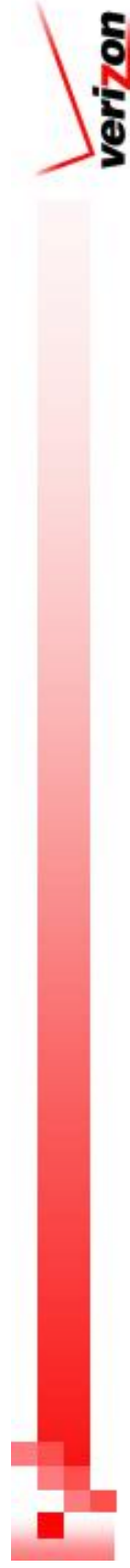
Market Studies and Focus Groups Show a Demand for Broadband

- ◆ Airfone has pushed the limits of current service offerings within the bounds of current regulatory limits.
- ◆ Customers are demanding a wider breadth of services beyond what narrowband technology permits.
 - Virtual Private Network (VPN) Email
 - Unencumbered internet accessibility
 - E-commerce
 - Web surfing
 - Airline logistical support
 - Instant Messaging
 - Wireless data services



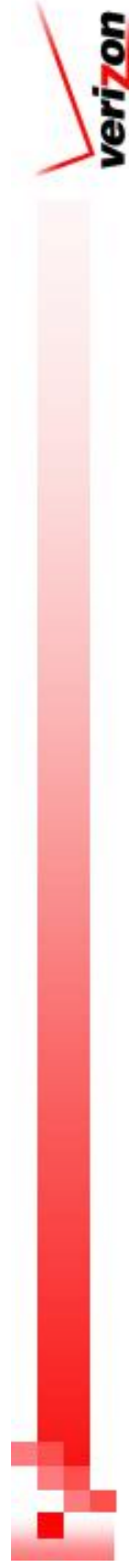
Cost Concerns Will Drive Deployment

- ◆ Airlines experiencing an economic downturn
 - Sensitive to equipment costs
- ◆ Next generation technology deployment costs must be minimized to support contemporary terrestrial pricing models.
 - Consequently, the deployment must be built on existing technology
 - Custom networks are expensive to develop, manufacture and maintain



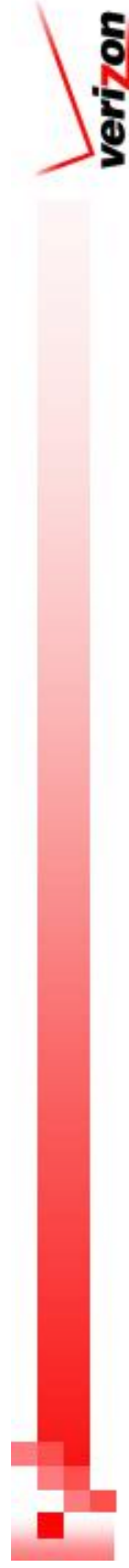
Technology Considerations Will Force Choices

- ◆ Airfone has investigated various transport technologies to provide the next generation of ATG services.
 - 6 kHz channel bonding
 - Creative reuse plans
 - Current and emerging wireless technologies
- ◆ IP-based technologies provide the flexibility necessary to efficiently use the current ATG allotment.
- ◆ Mixed technologies are not compatible due to interference concerns.



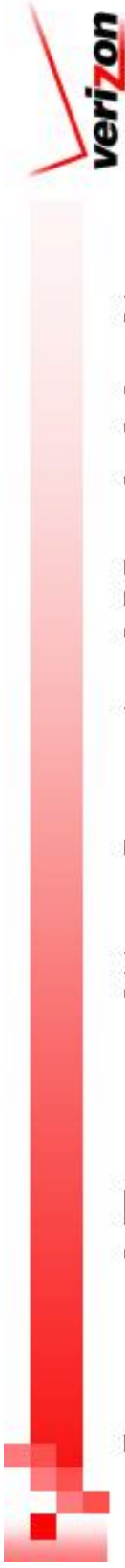
Limited Spectrum is Available for a Viable 800 MHz Broadband Service Provider

- ◆ Spectrum limits dictate aggressive management of one channel.
- ◆ With only one channel utilized intensely, the current band will support only one system on a primary basis.
- ◆ The band plan must provide for the orderly transition to broadband.



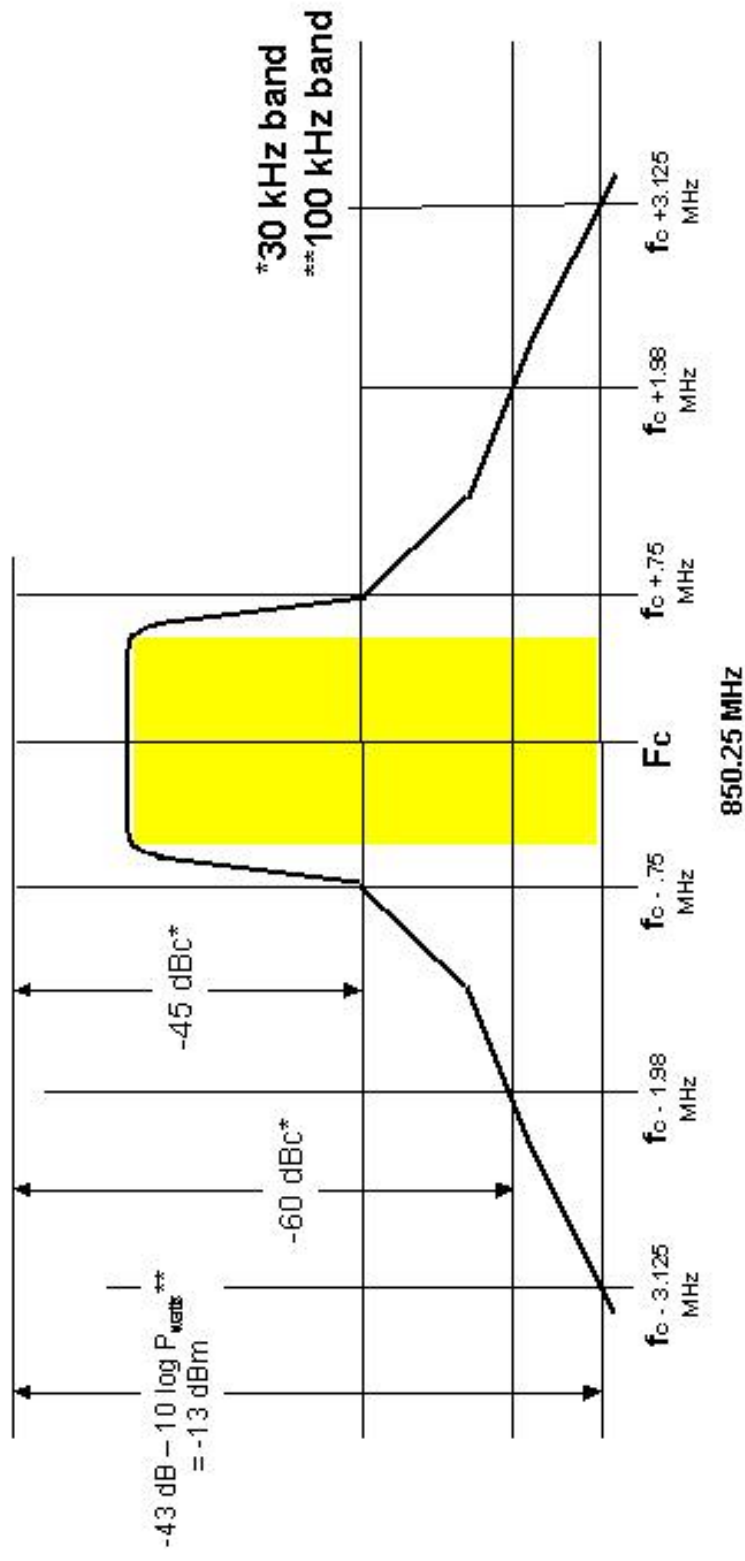
Next Generation Characteristics

- ◆ Utilize a single 1.25 MHz channel.
- ◆ Nominal output power of Ground Radio Subsystem
 - +43 dBm at the output of the high power amplifier of the Radio Subsystem
- ◆ Other Ground Transmitter system component parameters
 - Cable loss of 0 to 3 dB
 - Diplexer loss of 1.3 dB
 - Antenna gain of +14.7 dB
- ◆ Effective Radiated Power: +56.4 dBm in a 1.25 MHz bandwidth
 - Assumes 0 dB cable loss



Ground Transmitter Spectral Mask Limits

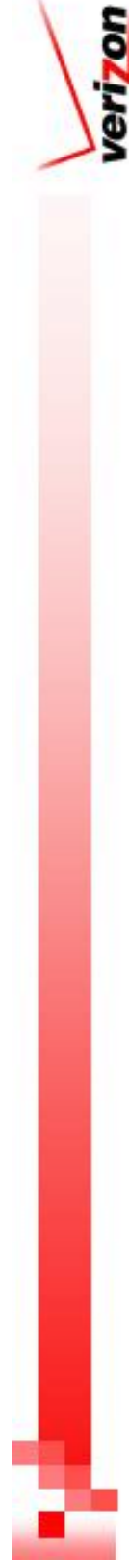
Total Power Reference = 41.7 dBm





Experimental Flight Tests - March 2004

- ◆ Validate new broadband technology.
 - Targeting 1.5 Mbps ground-to-air data rate per aircraft
 - 400 kbps transfer rate for air-to-ground link
- ◆ Optimize link budget.
- ◆ Measure co-site interference using various airborne radiation schemes.
- ◆ Stress quality of service (QOS) capabilities .



Summary

- ◆ Customers are demanding services beyond what current ATG regulation allows.
- ◆ Verizon has committed development capital in the past and is equally committed to the future.
- ◆ Single 1.25MHz channel using IP-based architecture provides the needed flexibility to offer the widest range of services.



Summary

- ◆ The Commission should adopt modest changes to its rules to allow Verizon Airfone to offer broadband service.
- ◆ A third quarter decision is needed to satisfy clear public demand for these services.